

Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR § 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for visualizing a sequence of volume images of a moving object, which method comprises the steps of:

a) determining ~~the~~ relevant first volume values of a first volume image₁ which are relevant ~~for the~~ to visualization of the first volume image, from ~~the~~ first volume values of said first volume image₁;

b) storing ~~the~~ first voxels with which ~~these~~ the relevant first volume values are associated₁;

c) deriving a first two-dimensional image from the stored first voxels of the first volume image₁;

d) determining ~~the~~ relevant second volume values of a second volume image₂ which are relevant ~~for the~~ to visualization of the second volume image, from ~~those of its~~ second volume values which are associated with ~~the~~ stored first voxels or with voxels neighboring said stored first voxels₂;

e) storing ~~the~~ second voxels with which ~~these~~ the relevant second volume values are associated₂; and

i) ~~f)~~ deriving a second two-dimensional image from the stored second voxels of the second volume image₂;

~~g) repeating the steps d) to f) for any further volume images.~~

2. (Currently amended) A ~~The~~ method as claimed in claim 1, in which the neighboring voxels are defined by a motion model of the moving object motion.

3. (Currently amended) ~~A~~ The method as claimed in claim 1, in which all voxels from ~~surrounding regions around~~ surrounding the stored first voxels are defined as neighboring voxels.

4. (Currently amended) ~~A~~ The method as claimed in claim ~~[[1]]~~ 3, in which ~~the~~ at least one of a shape and/or the and a magnitude of the surrounding regions can be adjusted is adjustable.

5. (Currently amended) ~~A~~ The method as claimed in claim 3, in which a surrounding region ~~contains~~ comprises all voxels ~~which are situated~~ positioned no further than a given geometrical distance from a stored first voxel.

6. (Currently amended) ~~A~~ The method as claimed in claim 1, in which the first voxels of a ~~the first~~ volume image are combined in blocks for storage, a each block being stored when ~~the~~ a first volume value of associated with at least one first voxel in ~~a~~ the block is relevant for the visualization of the first volume image, the visualization of ~~[[a]]~~ the second volume image being derived from ~~those of it's~~ the second volume values which are associated with the first voxels in the stored blocks or in blocks neighboring ~~such~~ the stored blocks.

7. (Canceled)

8. (Currently amended) ~~An~~ The apparatus as claimed in claim ~~[[7]]~~ 14, further comprising:
an acquisition unit for ~~the acquisition of~~ acquiring the first and second volume images.

9. (Currently amended) ~~An ultrasound~~ The apparatus as claimed in claim 8, wherein the apparatus is an ultrasound apparatus, and the comprising an acquisition unit in the form of comprises a sonography applicator.

10. (Currently amended) ~~A-CT~~ The apparatus as claimed in claim 8, wherein the apparatus

apparatus is a CT apparatus, and the ~~comprising an~~ acquisition unit in the form of ~~comprises~~ an X-ray source and an X-ray detector unit.

11. (Currently amended) A computer readable medium having stored thereon a program or computer program product which enables a programmable data processing unit to carry out a method as claimed in claim 1 executable by a computer for visualizing a sequence of volume images of a moving object, the computer readable medium comprising:

a first determining code segment for determining relevant first volume values of a first volume image, which are relevant to visualization of the first volume image, from first volume values of the first volume image;

a first deriving code segment for deriving a first two-dimensional image from first voxels corresponding to the relevant first volume values of the first volume image;

a second determining code segment for determining relevant second volume values of a second volume image, which are relevant to visualization of the second volume image, from second volume values which are associated with the first voxels or with voxels neighboring said first voxels; and

a second deriving code segment for deriving a second two-dimensional image from second voxels corresponding to the relevant second volume values of the second volume image.

12. (New) The method as claimed in claim 1, further comprising the step of:
repeating the steps d) to f) to derive further two-dimensional images from subsequent volume images.

13. (New) The method as claimed in claim 1, wherein determining the relevant first volume values of the first volume image, which are relevant for the visualization of the first volume image, is based on an imaging direction.

14. (New) An apparatus for visualizing a sequence of volume images, the apparatus comprising:

a data input for inputting volume images of a moving object;
a memory for storing voxels associated with volume values of the volume images; and
an image processor for determining first volume values of a first volume image which are relevant to visualization of the first volume image, causing first voxels with which the relevant first volume values are associated to be stored in the memory, deriving a first two-dimensional image from the stored first voxels of the first volume image, determining second volume values of a second volume image which are relevant to visualization of the second volume image from volume values associated with stored first voxels or with voxels neighboring the stored first voxels, causing second voxels with which the relevant second volume values are associated to be stored in the memory, and deriving a second two-dimensional image from the stored second voxels of the second volume image.

15. (New) the apparatus of claims 14, further comprising:

a monitor for consecutively displaying the first two-dimensional image and the second two-dimensional image.